Abstract

An object of the invention is to reduce the amount of the differential data for use in data updating in a data updating system. At the time of producing differential data, a Move/Add determining unit (35) determines whether to produce Move data indicating a Move instruction to move and copy a matching data string from a pre-updating file to a post-updating file or Add data indicating an Add instruction to add and copy data. At the time, a matching data string search unit (34) searches for a matching data string between the pre-updating file and the post-updating file. If the length of the data string to be copied is not less than five bytes, the data is output from a Move data output unit (36) as Move data, and if the length is not more than four bytes, the data is output from the Add data output unit (37) as Add data. The Move data and the Add data are combined to produce differential data. The Move size and Move address of the Move data are expressed by a variable bit length. In this way, the amount of differential data can be reduced.